# CX-JN55

# SERVICE MANUAL

*AEP Model*
*UK Model*

**Ver 1.1 2004.08**

- CX-JN55 is the amplifier, CD player, tape deck and tuner section in JAX-N55.

| | | |
|---|---|---|
| CD Section | Model Name Using Similar Mechanism | CX-JN77 |
| | CD Mechanism Type | CDM74-F1BD81 |
| | Base Unit Name | BU-F1BD81A |
| | Optical Pick-up Name | KSM-215DCP |
| Tape deck Section | Model Name Using Similar Mechanism | CX-JN30 |
| | Tape Transport Mechanism Type | CWM43FF13 |

## SPECIFICATIONS

### Amplifier section

DIN power output (rated): 52 + 52 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 65 + 65 watts (6 ohms at 1 kHz, 10% THD)
Music power output (reference): 130 + 130 watts (6 ohms at 1 kHz, 10% THD)
Inputs
VIDEO/MD IN (phono jacks): voltage 450/250 mV, impedance 47 kilohms
Outputs
PHONES (stereo mini jack): accepts headphones of 8 ohms or more
SPEAKER: accepts impedance of 6 to 16 ohms

### CD player section

System: Compact disc and digital audio system
Laser: Semiconductor laser (λ=780 nm) Emission duration: continuous
Frequency response: 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio: More than 90 dB
Dynamic range: More than 90 dB

### Tape deck section

Recording system: 4-track 2-channel, stereo
Frequency response: 50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

### Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
Russian models: 65.0 – 74.0 MHz (There is no stereo effect. 10-kHz step)
87.5 – 108.0 MHz (50-kHz step)
Other models: 87.5 – 108.0 MHz (50-kHz step)
Antenna: FM lead antenna
Antenna terminals: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

Tuning range: 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna: AM loop antenna
Antenna terminals: External antenna terminal
Intermediate frequency: 450 kHz

– Continued on next page –

## COMPACT DISC DECK RECEIVER

**9-877-791-02**
2004H05-1
© 2004.08

**Sony Corporation**
**Personal Audio Company**
**Published by Sony Engineering Corporation**

### General

| | |
|---|---|
| Power requirements | 230 V AC , 50/60 Hz |
| Power consumption | 110 watts |
| | 0.25 watts (at the Power Saving Mode) |

Dimensions (w/h/d) incl. projecting parts and controls
Amplifier/Tuner/Tape/CD section:
Approx. 280 × 325 × 425 mm
Mass Approx. 9.9 kg

Design and specifications are subject to change without notice.

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

**CAUTION**
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

### UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

### : LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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# SECTION 1
# SERVICING NOTES

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

## NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

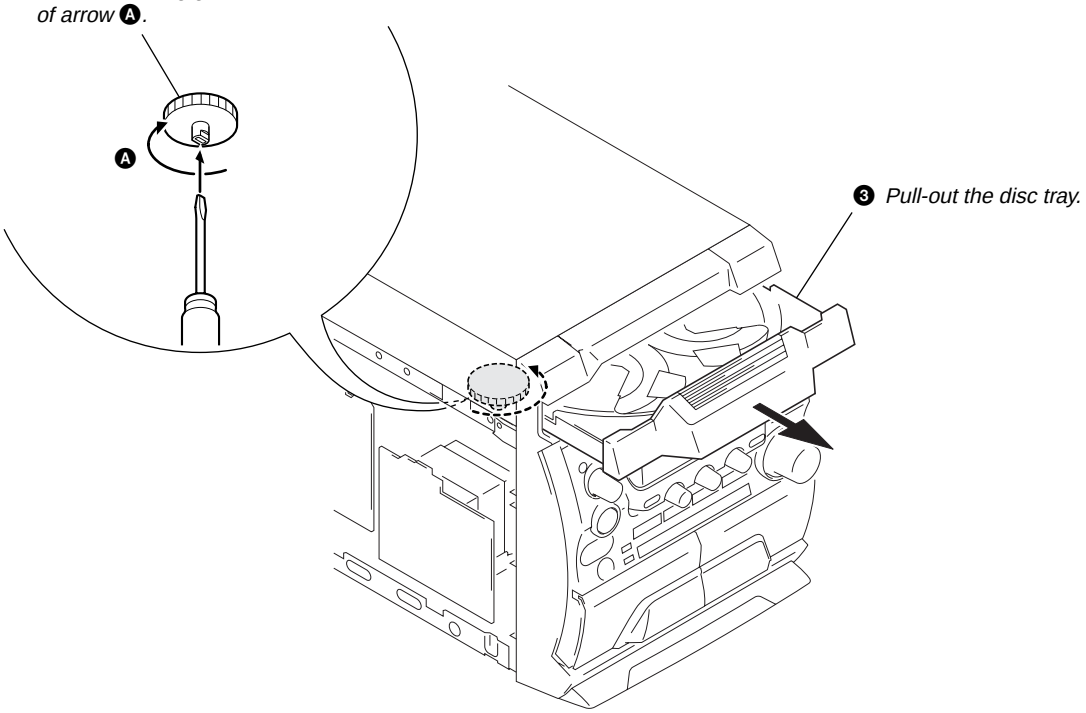
## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

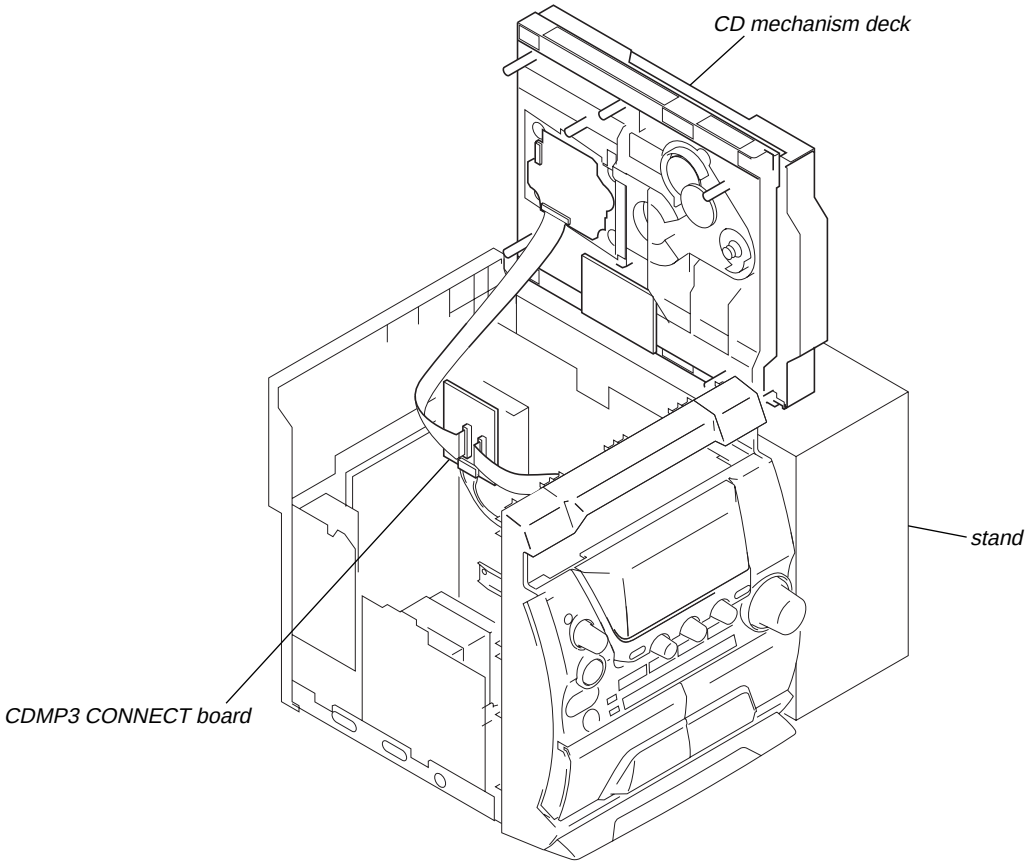
**HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.**

❶ *Remove the case (side-L).*

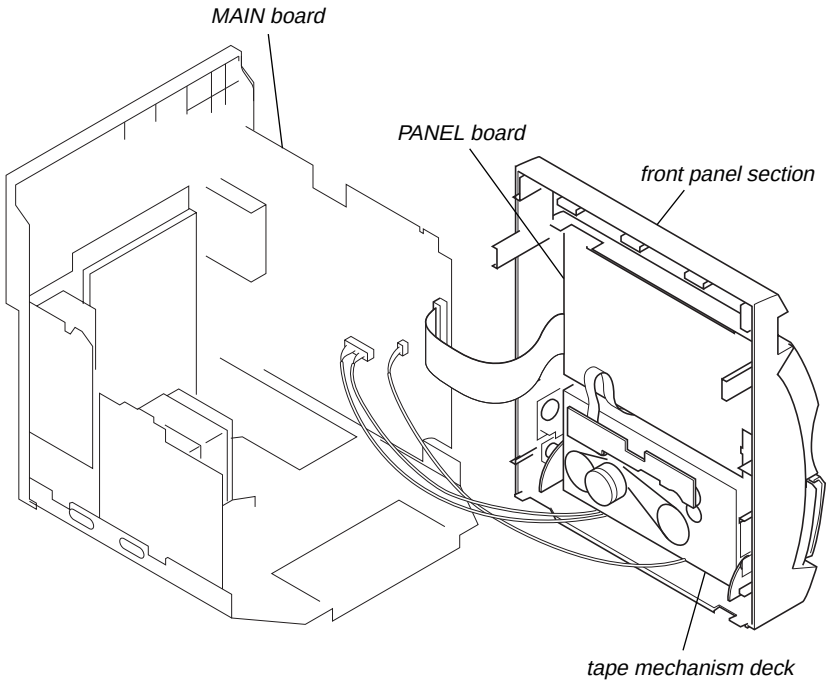
❷ *Turn the loading gear in the direction of arrow Ⓐ.*



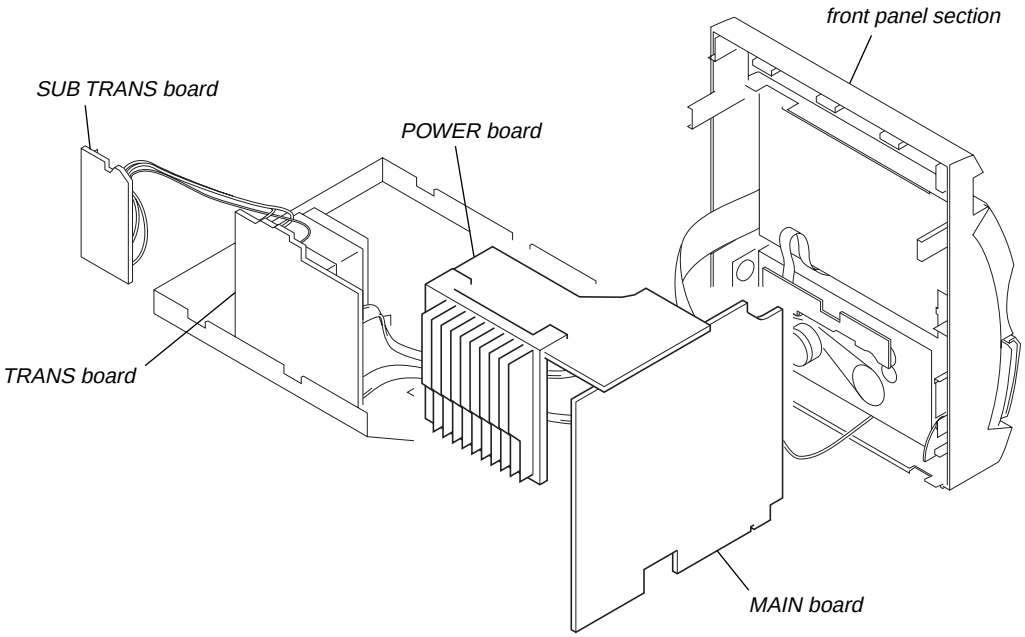

**SERVICE POSITION**
**– CD MECHANISM DECK –**



**– FRONT PANEL SECTION –**




**– AMP BOARD –**



# SECTION 2
# GENERAL

This section is extracted from instruction manual.

- **LOCATION OF CONTROLS**

## Main unit

**ALPHABETICAL ORDER**

**A – N**

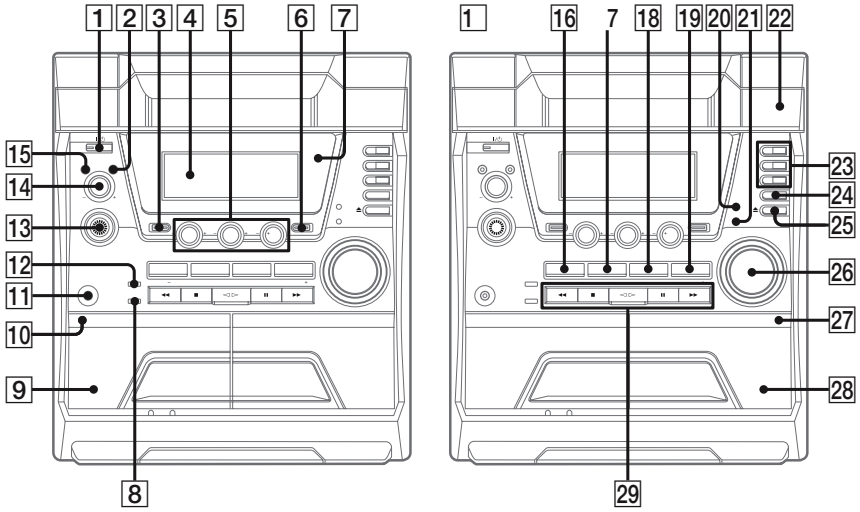
ALBUM + 29
ALBUM – 29
BASS control 5
CD 16
CD SYNC 12
Deck A 9
Deck B 28
DISC 1 – 3 23
DISC SKIP/EX-CHANGE 24
Disc tray 22
DISPLAY 15
Display window 4
ENTER 2
i-Bass 13
MIDDLE control 5

**O – Z**

Operation Dial (AMS/TUNING) 14
P FILE 6
PHONES jack 11
PLAY MODE 20
PRESET EQ 3
REC PAUSE/START 8
Remote sensor 7
SURROUND 21
TAPE A/B 18
TREBLE control 5
TUNER/BAND 17
TUNING MODE 20
VIDEO/MD 19
VOLUME control 26

**BUTTON DESCRIPTIONS**

I/⏻ (power) 1
⏏ PUSH (deck A) (eject) 10
⏏ (eject) 25
PUSH ⏏ (deck B) (eject) 27
◀◀ (rewind) 29
■ (stop) 29
▷ (play) 29
❚❚ (pause) 29
▶▶ (fast forward) 29



## Remote control

**ALPHABETICAL ORDER**

**A – E**

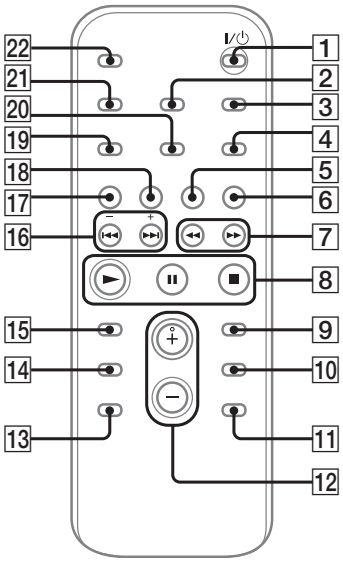
ALBUM + 11
ALBUM – 13
CD 18
CLEAR 15
CLOCK/TIMER SELECT 2
CLOCK/TIMER SET 3
DISC SKIP 10
DISPLAY 21
ENTER 9
EQ 14

**F – Z**

FM MODE 4
FUNCTION 6
PLAY MODE 20
REPEAT 4
SLEEP 22
TAPE 17
TUNER BAND 5
TUNER MEMORY 19
TUNING MODE 20
VOLUME +/– 12

**BUTTON DESCRIPTIONS**

I/⏻ (power) 1
◀◀/▶▶ (rewind/fast forward) 7
► (play) 8
II (pause) 8
■ (stop) 8
–/+ (tuning) 16
I◀◀ /▶▶I (go back/go forward) 16




## Setting the clock

Use buttons on the remote for the operation.

**1 Press I/⏻ to turn on the system.**

**2 Press CLOCK/TIMER SET.**

**3 Press I◀◀ or ▶▶I repeatedly to set the hour.**

**4 Press ENTER.**

**5 Press I◀◀ or ▶▶I repeatedly to set the minute.**

**6 Press ENTER.**

The clock starts working.

### To adjust the clock

1 Press CLOCK/TIMER SET.

2 Press I◀◀ or ▶▶I repeatedly to select "CLOCK SET", then press ENTER.

3 Do the same procedures as step 3 to 6 above.

**Notes**

- The clock settings are canceled when you disconnect the power cord or if a power failure occurs.
- You cannot set the clock in Power Saving Mode.